

## **REMARKS**

Claims 1, 3-10, 12-13, 15-21, 23-42 and 44-48 were pending in the application prior to the present amendment.

Claims 32-41 are herein cancelled.

Claims 1, 10, 13, 16-17, 19, 21, 42, 44-45 and 48 are herein amended.

Thus, Claims 1, 3-10, 12-13, 15-21, 23-31, 42 and 44-48 will be pending in the application after entry of the present amendment.

Claims 1, 3-7, 9-10, 12-13, 15-21, 23-25, 27-31, 42-44 and 46 were rejected under 35 U.S.C. Section 103(a) as being unpatentable over TERAS Evaluation Module User Guide (hereinafter referred to simply as “TERAS”) in view of Dusterhoft (U.S. Pub. 2004/0122640).

Claim 8 was rejected under 35 U.S.C. Section 103(a) as being unpatentable over TERAS and Dusterhoft as applied to claim 1, and further in view of Joshi et al. (Techno--Economic and Risk Evaluation of a Thermal Recovery Project) (hereinafter referred to simply as “Joshi”).

Claims 26, 47 and 48 were rejected under 35 U.S.C. Section 103(a) as being unpatentable over TERAS and Dusterhoft as applied to claims 21 and 42, and further in view of what the Examiner deems to be Applicants’ admitted prior art.

Claim 45 was rejected under 35 U.S.C. Section 103(a) as being unpatentable over TERAS and Dusterhoft as applied to claim 42, and further in view of Ortoleva (U.S. Pub 2002/0013687 A1).

These rejections are respectfully traversed based on the following reasoning.

Claim 1, as amended, recites:



A method comprising:

- (a) assembling a set of models that represent components of a value chain, wherein each of the models of said set includes one or more variables, where each of said one or more variables is defined on a corresponding range, wherein at least one of the models of said set of models is a geocellular reservoir model;
  - (b) selecting values of the variables in their respective ranges to create instantiated models;
  - (c) assembling the instantiated models into a workflow;
  - (d) executing one or more simulation engines on the workflow to generate data output; and
  - (e) storing the selected values of the variables and the data output from the one or more simulation engines to a memory;
- wherein at least one of the one or more simulations engines is a physics-based reservoir flow simulator.

This combination of features is not suggested in the cited references or in any combination of teachings from the cited references. In particular, none of the cited references suggest any use of a “geocellular reservoir model” as recited in Claim 1. Note that the reservoir models achievable within TERAS are simple lumped-parameter models that do not allow for spatial variation of properties within the reservoir. See TERAS pages 151-152 and pages 33-34. In contrast, a geocellular reservoir model allows for spatial variation of properties among the cells of the model.

Thus, Claim 1 and its dependents are patentably distinguished over the cited references.

Claims 10, 13, 17, 19, 21, 42 and 48 each recite features similar to the features recited in Claim 1. Thus, these claims and their dependents are patentably distinguished over the cited references at least for the reasons given above.

Claim 31 recites:

A method comprising:

- (a) receiving user input to assemble a first case comprising models and planning variables;



- (b) receiving user input to assemble a second case based on the first case;
- (c) storing the first case, the second case and differences between the first case and second case in a memory medium;
- (d) displaying an indication of the first case, second case, and a parent child relationship between the first case and second case;
- (e) conditionally displaying the differences between the first case and second case in response to a user request. [*Labels (a) through (e) added for the sake of discussion*]

The Examiner's argument against claim 31 relies on the following system of identifications.

- (1) In the Office Action at page 12, lines 1-7, the Examiner argues the anticipation of actions (a) and (b) of claim 31 by identifying the first case and second case of claim 31 with the cases of a decision tree as disclosed in TERAS pages 171.
- (2) In the Office Action at page 12, lines 8-15, the Examiner argues the anticipation of action (c) of claim 31 by identifying the first case and the second case of claim 31 with the previous created Evaluation (Tutorial 1) and the new Evaluation (Workover Stochastic) disclosed in TERAS page 52.
- (3) In the Office Action at page 13, lines 1-9, the Examiner argues the anticipation of action (d) of claim 31 by identifying the second case of claim 31 with a project as disclosed in TERAS page 179-180.

This system of identifications is inconsistent. It is not proper to identify three different sets of objects in the cited reference with the first case and second case recited in Claim 31. Thus, the Examiner argument falls short.

Furthermore, none of the cited references suggest “conditionally displaying the differences between the first case and second case in response to a user request” as recited in Claim 31. The Examiner relies on page 52, 53, 159 and 171 as evidence for the anticipation of this feature. However, none of these pages disclose anything regarding displaying differences *in response to a user request*. The Office Action fails to specifically indicate what the Examiner means to identify with the “*differences between the first case and the second case*” or with “*the user request*”. Also note that the shared screens of TERAS page 171 do not suggest or imply that differences between two evaluations are displayed in response to a user request.



Thus, Claim 31 is patentably distinguished over the cited references at least for the reasons given above.



## **CONCLUSION**

In light of the foregoing amendments and remarks, Applicant submits the application is now in condition for allowance, and an early notice to that effect is requested.

If any extensions of time (under 37 C.F.R. § 1.136) are necessary to prevent the above-referenced application(s) from becoming abandoned, Applicant(s) hereby petition for such extensions. The Commissioner is hereby authorized to charge any fees which may be required or credit any overpayment to Meyertons, Hood, Kivlin, Kowert & Goetzel P.C., Deposit Account No. 50-1505/5460-01101/JCH.

Also filed herewith are the following items:

- ☐ Request for Continued Examination
- ☐ Terminal Disclaimer
- ☐ Power of Attorney By Assignee and Revocation of Previous Powers
- ☐ Notice of Change of Address
- ☐ Other:

Respectfully submitted,

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